

Outline for Preparation of Plan for Health Care of  
People of Marshalls Exposed to Radiation from  
U.S. Nuclear Testing Program

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I. Introduction

P.L. 96-205,<sup>1</sup> approved by President Carter on March 12, 1980, requires the Secretary of the Interior to provide for the people of the atolls of Bikini, Enewetak, Rongelap, and Utirik, and for the people of such other atolls as may be found to have been exposed to radiation from the U.S. nuclear testing program, a program of medical care and treatment and environmental research and monitoring for any injury, illness, or condition that may be the result directly or indirectly of such nuclear testing program.

The law stipulates that the program shall be implemented according to a plan developed by the Secretary in consultation with the Secretaries of Defense, Energy, and Health, Education, and Welfare<sup>2</sup> and with the direct involvement of representatives from the people of each of the affected atolls and from the Government of the Marshall Islands. The plan shall set forth, as appropriate to the situation, condition, and needs of the individual atoll peoples:

"(1) an integrated, comprehensive health care program including primary, secondary, and tertiary care with special emphasis upon the biological effects of ionizing radiation;

"(2) a schedule for the periodic comprehensive survey and analysis of the radiological status of the atolls to and at appropriate intervals, but not less than once every five years, the development of an updated radiation dose assessment, together with an estimate of the risks associated with the predicted human exposure, for each such atoll; and

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<sup>1</sup> Section 102 of P.L. 96-205 attached as Appendix "A".

<sup>2</sup> Now Health and Human Services.

"(3) an education and information program to enable the people of such atolls to more fully understand nuclear radiation and its effects;

The law requires that the Secretary shall submit the plan to Congress no later than January 1, 1980, together with his recommendations, if any, for further legislation.

In signing H.R. 3756 (which became P.L. 96-205), the President noted that the provision regarding health care and environmental monitoring for the residents of the Northern Marshalls was drafted very broadly. The President stated that it was his intention that the Secretary of the Interior should implement the provision to focus the benefits on those Northern Marshalls residents directly affected by U.S. nuclear testing.

The Secretary of the Interior has requested the Department of Energy working with appropriate agencies and consultants to develop the necessary plans for items "2" and "3", i.e., a schedule for radiological monitoring, etc., and the development of an education and information program. These two aspects will later be integrated into the overall plan called for by P.L. 96-205.

The Secretary of the Interior has determined that the preparation of a plan for a health care program for the peoples of the atolls of Bikini, Enewetak, Rongelap, Utirik, and for the people of such other atolls as may be bound to be or have been exposed to radiation from nuclear weapons testing program shall be prepared by a private health care organization under contract and shall cover the aspects set forth in the accompanying "Scope of Work".

## II. Peoples of Affected Atolls

### 1. Peoples of Rongelap and Utirik Atolls

The medical monitoring and follow up care program of the exposed people of Rongelap and Utirik atolls commenced after the Bravo Shot Fallout accident of March 1, 1954. This program has been the responsibility of AEC, ERDA, and now the Department of Energy. The medical monitoring and follow up medical care program of the exposed residents of these two atolls and for members of selected "comparison" groups from the onset of the program has been contracted to the Brookhaven National Laboratory, Associated Universities, Upton, New York.

BNL now has 26 years of medical research findings and experience in the field with the people of Rongelap and Utirik. It is regarded, therefore, as essential that any health care organization that develops a plan for future health care of the people of the "affected atolls" work closely with the Medical Department of the Brookhaven National Laboratory on past and current medical activities as well as recommendations for the future. It is estimated that costs to the Medical Department of Brookhaven National Laboratory to participate in this phase of the planning work will be in the range of \$40,000 to \$50,000. The basic contract must include reimbursement funds for the Brookhaven National Laboratory for participation in the overall health plan contract.

The BNL medical program for the people of Rongelap and Utirik basically has been a medical research program but this mandate has, of necessity, over the years been expanded to include care of non-radiation related diseases. This has been occasioned by three basic factors; the lack in the past of adequate primary

medical care in the Marshall Islands, the fact that valid pre-exposure health care statistics for the people of the Northern Marshalls are virtually non-existent thus making it well nigh impossible to establish a cause-effect relationship for any given case, and by the intense emotional and psychological insecurity of the people of the affected atolls who are not conditioned to place radiation effects in a proper perspective.

In 1954, 84 Rongelapese were exposed to fallout. Of these 84 original exposed individuals, 50 are still living. There are also some 500 to 600 unexposed Rongelapese, made up of descendants of the exposed group and the Marshallese who have Rongelapese blood or marriage affiliation. About 500 of the unexposed Rongelapese have been used sporadically as a "comparison" group to the exposed population.

The original Utirik exposed group consisted of 158 individuals of which 120 still are alive. Another 500 unexposed Utirikese, made up of descendants of the exposed group and Marshallese with Utirik blood or marriage affiliation, also fall into the Utirik category. Some 375 of this larger group have been studied as a "comparison" group to the exposed Utirikese.

## 2. Bikini Atoll and Enewetak Atoll Peoples

### A. The People of Bikini Atoll

Bikini Atoll was the site of 23 U.S. atmospheric tests. The 170 Bikinians resident there in 1946 were removed from the atoll in March 1946 prior to start of the testing program. After several years of very unsatisfactory resettlement efforts in other parts of the Northern Marshalls, the Bikinians were resettled in March 1948

on the isolated island of Kili in the southern Marshalls. Thus, from March 1948 onwards the main body of the people of Bikini have lived well outside the low level fallout zone of the nuclear tests.

No radiological monitoring or medical examinations were conducted on any Bikinians until the early 1970's after a small group returned to Bikini Island. The group, at first consisting of workers, then expanding to family groups, periodically was medically monitored. In April 1978, some 99 of the 145 residents on Bikini island had whole body count examinations as well as medical examinations. These 145 residents were evacuated from Bikini Island in late August 1978. Some of this group have been given follow up monitoring examinations since the August 1978 removal.

Today, there are over 900 Bikinians. Some 500 or so reside on Kili Island, another 140 live on Ejit Island near Majuro, some 100 or so live in Majuro and another 100 or so live on Ebeye. Small numbers are scattered in other parts of the Marshalls.

In 1969, after certain parts of Bikini Atoll were considered safe for resettlement, small numbers of Bikinians began to return to Bikini Island. The first returnees, as noted above, were workers in the cleanup and rehabilitation program started in 1970. Gradually, family members joined the workers and by the mid-1970's some 60 or so Bikinians were in resident on Bikini Island. By 1978, the grup had grown to 145 individuals. It was this group that was evacuated from Bikini Island in late August 1978 when "body burden levels" exceeded acceptable standards. Cesium 137

uptake from locally grown foods primarily appeared to be the cause for the rising body burden levels. As a result, it now has been determined that Bikini Island must be off limits for another 60 years.

Additionally, some 50-60 Marshallese of non-Bikinian descent lived and worked on Bikini Island for varying periods between 1970-76. These individuals also require special screening.

There also has been close association, including inter-marriage between the people of Rongelap and people of Bikini. At least one exposed Rongelapese and his family were resident on Bikini Island in 1978 when the last evacuation occurred.

The latest resettlement proposal of the people of Bikini involve living on the island of Eneu in the Bikini Atoll, probably on a rotation basis, and the maintenance of a community on Kili Island. Should this proposal be feasible, health care must be planned for the Kili Island community, a possible community on Eneu Island, Bikini Atoll, for a small Bikini community in Majuro and for several hundred other Bikinians residing at Ebeye and other parts of the Marshalls.

#### B. People of Enewetak Atoll

In 1947, the 142 residents of Enewetak Atoll also were evacuated from their home atoll. They were settled on Ujelang Atoll, which lies 124 miles southeast of Enewetak, in the Northern Marshalls. From 1948 to 1958, there were 43 test detonations performed at Enewetak Atoll.

Ujelang Atoll is within the region of low level fallout. At least once during the nuclear testing period, it is reported

that the U.S. Navy temporarily evacuated the people of Ujelang by taking the entire community to sea during a test operation.

Today approximately 500 people make up the Ujelang-Enewetak community with another 40 or so Ujelangese living on Ebeye or Majuro.

With the start of the cleanup and rehabilitation program of Enewetak Atoll in 1976, a small revolving community of some 60 Ujelangese were permitted to live on Japtan Island in the southern part of Enewetak Atoll. Most of the members of the Ujelang community have thus lived for at least a six month period on Japtan Island during the timespan of 1976-1980. In April 1980, the Japtan community was expanded to 140 individuals. The new communities of Enewetak and Medren Island in the southern part of Enewetak Atoll as of July 1980 had not yet been opened. Most of the remaining population on Ujelang is expected to return to Enewetak and Medren within the coming year. Ujelang Atoll, though, will continue to be used as a source of fresh food supply and will be in continual use for the next 8-10 years by the Enewetak people either by having an outpost community there or a revolving community. Health care for the people of Enewetak, accordingly, must be provided at Ujelang as well as Enewetak.

The Department of Energy in the spring of 1980 carried out a "whole body" count on the entire Ujelang group prior to the planned return to the southern parts of Enewetak Atoll. No basic medical survey of the Enewetak group has as yet been carried out.

### 3. Other Atolls of the Northern Marshalls Cited by the Government of the Marshalls as "Possible Affected Atolls"

The Government of the Marshall Islands recently has expressed considerable concern that other atolls in the Northern Marshalls known to be in the areas of low level radiation fallout, but not held by U.S. officials to be in the category of "affected atolls", should in reality be listed in that category.

In early 1980, the Government of the Marshall Islands conducted a survey on the people of Likiep Atoll and contend that its survey demonstrates that there is more than a normal incidence of thyroid disorders, throat problems and other abnormal medical aspects amongst the people.

The Government of the Marshalls has requested that the alleged situation with respect to health aspects of the people of Likiep and associated atolls should be studied. The Department of Energy has agreed to provide a biochemical screening profile of the people of Likiep Atoll and of the people of one other atoll in the Marshalls to be selected as a comparison population. Medical staff would be included in the survey team. Negotiations between the Department of the Interior, the Department of Energy and the Government of the Marshall Islands currently (July 1980) are underway to accomplish the carrying out of the screening profile of the people of Likiep Atoll.

### III. Scope of Work

The first line of action will be to develop a plan for a health care program for the people of the four "affected atolls" designated in P.L. 96-205, i.e., Rongelap Atoll, Utirik Atoll, Bikini and Enewetak Atolls.



A basic aspect to be resolved will be the extent any proposed future health care program for the people of the "affected atolls" can be integrated into an overall program of health care the Marshall Islands Government provides for the people of the Marshalls.

To date, the medical services branch of the Trust Territory of the Pacific Islands Government and the Government of the Marshall Islands has participated only in a peripheral way in the on-going medical monitoring and follow up medical care program for the exposed people of Rongelap and Utirik and for the comparison groups that have been designated. In an earlier period, this peripheral assistance consisted of providing ship logistic support on a reimbursable bases for annual medical surveys and for the provision of certain technician support, either from the Majuro Hospital or from the former Trust Territory Headquarters Health Department.

In recent years, the expansion of the DOE medical and environmental monitoring program has necessitated quarterly inspection trips, a full-scale annual medical survey, as well as the stationing of a M.D. at Kwajalein Atoll to provide for special medical monitoring and care for eligible Rongelap and Utirik residents. These demands have required the Department of Energy to make provision to supply its own logistic requirements.

In recent years also the Brookhaven National Medical teams, at least for the annual surveys, have been expanded to include doctors and professional staff not confined to radiation specialties. "Sick call" services are provided during the survey visits, and specialists in maternal and child care, etc., have been added

to the basic medical teams. The original mandate called for cases of illness, not related to radiation causes, to be referred to the Marshall Islands Health Care Program. The success of the follow up for such referral cases is questionable simply because the Trust Territory Government health service in the past has not had the resources to furnish the required care.

Annual costs for the medical monitoring, follow up care, and environmental monitoring program of the Department of Energy for the people of Rongelap and Utirik currently are in the range of \$3-4 million. In contrast, in FY 80, the entire health budget of the Marshall Islands Government was \$2.7 million. This amount had to provide curative and preventive medical care and programs for a population of over 30,000 people, many scattered on outer islands. It supported the major hospital at Majuro which serves as the only major in-patient facility in the Marshalls. The current hospital facility in Majuro has 90 beds and is in very poor condition although funds for a new hospital have been appropriated. In addition to the Majuro hospital and an Ebeye sub-hospital, the Marshalls Health Department supports some 56 out-island dispensaries. Some of these are manned and equipped in name only.

Administrative and professional staffing of the health services of the Marshalls has not met minimum acceptable health standards in the past. In an attempt to improve health care, the Marshall Islands Government recently concluded an agreement with a "medical care adjunct" of the Seventh-Day Adventist Mission in Guam to take over the control and management of health services from the Ministry of Health Services. This new health care service agency must be brought into any planning exercise by the contractor at an early stage.

1. Continuation of Special Program for Rongelap and Utirik People

Specialized medical monitoring and follow up care for the exposed residents of Rongelap and Utirik and for members of the "comparison" groups must be continued. Provision of primary health care for the entire group now must be considered under provisions of P.L. 96-205.

2. Initiation of Special Program for Enewetak and Bikini People

Specialized medical monitoring for the people of Enewetak and Bikini now must be added to the on-going Rongelap and Utirik program and primary health care also provided for these two groups of people.

3. Special Problems Related to Diversity of Residence of "Affected Peoples"

Monitoring and special health care for the affected peoples must be provided not only in their home atolls but in other parts of the Marshall Islands where considerable numbers of these individuals now reside either on a temporary or permanent basis. For example, there often are as many Rongelapese and Utirikese living on Ebeye and/or Majuro as are in residence on Rongelap and Utirik Atolls. The past and current medical program under the auspices of the Department of Energy has had to be tailored to the places where the "affected peoples" are residing at the time of the quarterly or annual surveys. This pattern will continue in the future and must be an integral part of any proposed health care program.

Large numbers of Bkinians also are scattered throughout the Marshalls and these individuals also will be entitled to medical care. Although the people of Enewetak, having lived on the

isolated atoll of Ujelang for the past 34 years, are the most cohesive group, under the current return program to the atoll of Enewetak, four communities will come into existence. There will be new communities on Enewetak Island, on Medren Island and on Japtan Island in the southern part of Enewetak Atoll. Distance between these islands is too great to permit one centralized local health facility. For the foreseeable future also, there will be an Enewetak community of varying size on Ujelang Atoll, which is 124 miles southeast of Enewetak, and this community also must be provided with medical care.

#### Timetable for Preparation of Health Plan by Contractor

August 4, 1980

In conformance with provisions of P.L. 96-205, a meeting will be held in Washington, D.C., with representatives of the people of the affected atolls, representatives of the Government of the Marshall Islands and with representatives of various government agencies involved in preparation of the overall plan for health care of the people of the affected atolls. A proposed "Scope of Work" to be presented to a panel of health care contractors for preparation of the plan will be discussed at this meeting.

August 5-15

Negotiations by the Department of the Interior and contractor for preparation of "health care aspects" of overall plan.

August 15

Negotiations by the Department of the Interior and contractor for preparation of "health care aspects" of plan.

November 15, 1980

Contractor submits proposed "health care plan" to Department of the Interior.

APPENDIX "A"

PUBLIC LAW 96-205—MAR. 12, 1980

UNITED STATES INSULAR AREAS  
APPROPRIATION AUTHORIZATION

Public Law 96-205  
96th Congress

An Act

Mar. 12, 1980  
[H.R. 3756]

To authorize appropriations for certain insular areas of the United States, and for other purposes.

United States  
insular areas.  
Appropriation  
authorization.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

TITLE I—TRUST TERRITORY OF THE PACIFIC ISLANDS

48 USC 1681  
note.

SEC. 101. Section 2 of the Act of June 30, 1954 (68 Stat. 330), is amended by inserting after "for fiscal year 1980, \$112,000,000:" the following: "for fiscal years after fiscal year 1980, such sums as may be necessary, including, but not limited to, sums needed for completion of the capital improvement program, for a basic communications system, and for a feasibility study and construction of a hydroelectric project on Ponape:"

SEC. 102. The Act entitled "An Act to authorize certain appropriations for the territories of the United States, to amend certain Acts relating thereto, and for other purposes" (91 Stat. 1159; Public Law 95-124) is amended by inserting after section 105, the following new section:

Radiation  
exposure,  
compensation,  
research, and  
medical care.  
48 USC 1681  
note.

"SEC. 106. (a) In addition to any other payments or benefits provided by law to compensate inhabitants of the atolls of Bikini, Enewetak, Rongelap, and Utirik, in the Marshall Islands, for radiation exposure or other losses sustained by them as a result of the United States nuclear weapons testing program at or near their atolls during the period 1946 to 1958, the Secretary of the Interior (hereinafter in this section referred to as the 'Secretary') shall provide for the people of the atolls of Bikini, Enewetak, Rongelap, and Utirik and for the people of such other atolls as may be found to be or to have been exposed to radiation from the nuclear weapons testing program, a program of medical care and treatment and environmental research and monitoring for any injury, illness, or condition which may be the result directly or indirectly of such nuclear weapons testing program. The program shall be implemented according to a plan developed by the Secretary in consultation with the Secretaries of Defense, Energy, and Health, Education, and Welfare and with the direct involvement of representatives from the people of each of the affected atolls and from the government of the Marshall Islands. The plan shall set forth, as appropriate to the situation, condition, and needs of the individual atoll peoples:

✓ "(1) an integrated, comprehensive health care program including primary, secondary, and tertiary care with special emphasis upon the biological effects of ionizing radiation; \_

✓ "(2) a schedule for the periodic comprehensive survey and analysis of the radiological status of the atolls to and at appropriate intervals, but not less frequently than once every five years, the development of an updated radiation dose assessment, together with an estimate of the risks associated with the predicted human exposure, for each such atoll; and

"(3) an education and information program to enable the people of such atolls to more fully understand nuclear radiation and its effects;

"(b)(1) The Secretary shall submit the plan to the Congress no later than January 1, 1981, together with his recommendations, if any, for further legislation. The plan shall set forth the specific agencies responsible for implementing the various elements of the plan. With respect to general health care the Secretary shall consider, and shall include in his recommendations, the feasibility of using the Public Health Service. After consultation with the Chairman of the National Academy of Sciences, the Secretary of Energy, the Secretary of Defense, and the Secretary of Health, Education, and Welfare, the Secretary shall establish a scientific advisory committee to review and evaluate the implementation of the plan and to make such recommendations for its improvement as such committee deems advisable.

Plan, submitted  
to Congress. ✓

Scientific  
advisory  
committee. ✓

"(2) At the request of the Secretary, any Federal agency shall provide such information, personnel, facilities, logistical support, or other assistance as the Secretary deems necessary to carry out the functions of this program; the costs of all such assistance shall be reimbursed to the provider thereof out of the sums appropriated pursuant to this section.

Assistance from  
Federal  
agencies.

"(3) All costs associated with the development and implementation of the plan shall be assumed by the Secretary of Energy and effective October 1, 1980, there are authorized to be appropriated to the Secretary of Energy such sums as may be necessary to achieve the purposes of this section.

Development  
and  
implementation  
costs.

"(c) The Secretary shall report to the appropriate committees of the Congress, and to the people of the affected atolls annually, or more frequently if necessary, on the implementation of the plan. Each such report shall include a description of the health status of the individuals examined and treated under the plan, an evaluation by the scientific advisory committee, and any recommendations for improvement of the plan. The first such report shall be submitted not later than January 1, 1982."

Report to  
congressional  
committees.

Sec. 103. Paragraph 104(a)(3) of Public Law 95-134 (91 Stat. 1159) is hereby amended by deleting all after the word "cause" and inserting in lieu thereof the following words, ", even if such an individual has been compensated under paragraph (1) of this section."

Sec. 104. Notwithstanding any other provision of law, except in cases in which the Federal program is terminated with respect to all recipients under the program, Federal programs in the fields of education and health care shall not cease to apply to the Trust Territory of the Pacific Islands or any successor government or governments, nor shall participation in any applicable Federal programs in the fields of education and health care by the Trust Territory of the Pacific Islands or any successor government or governments be denied, decreased or ended, either before or after the termination of the trusteeship, without the express approval of the United States Congress.

Federal  
education and  
health care  
programs.  
48 USC 1695.

## TITLE II—NORTHERN MARIANA ISLANDS

Sec. 201. (a) The salary and expenses of the government comptroller for the Northern Mariana Islands shall be paid from funds appropriated to the Department of the Interior.

Government  
comptroller,  
salary.  
48 USC 1681c.  
48 USC 1681b.

(b) Section 4 of the Act of June 30, 1954, as amended by section 2 of Public Law 93-111 (87 Stat. 354) is further amended as follows:



